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09/849,783	05/05/2001	Michael Neal	DEM1P006	9893
36088 KANG LIM 3494 CAMINO TASSAJARA ROAD #436 DANVILLE, CA 94306	7590 01/18/2007		EXAMINER VAN DOREN, BETH	
			ART UNIT 3623	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/849,783	NEAL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 October 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17 and 19-24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20060424</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. The following is a non-final office action in response to communications received 10/24/06. Claims 1, 5-6, 8, 15-17 have been amended. Claim 18 has been canceled. Claims 1-17 and 19-24 are pending.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-4, 9-10, 15, and 19-20 are rejected under 35 U.S.C. 101 because it does not recite subject matter within one of the statutory classes. Claim 1 recites a series of engines (i.e. econometric engine, financial model engine, and promotional engine). Engines are portions of programs, and thus the body of claim 1 is construed as software per se. Claims 2-4, 9-10, 15, and 19-20 depend from claim 1 and therefore have the same deficiencies. Computer programs and software are merely a set of instructions capable of being executed by a computer. Without specific language stating that a computer or computer processor is actively executing the computer program/software, computer programs and software are not considered to be statutory processes or machines. Therefore, there must be some functional act performed by a computer or computer element on the software/computer program to impart statutory subject matter.

Therefore, it is respectfully submitted that claims 1-4, 9-10, 15, and 19-20 are directed towards non-statutory subject matter.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 9-10, 15, and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites in the preamble an apparatus, while the body of the claim recites a series of engines. It is unclear how a collection of engines, which are portions of computer programs, would amount to an apparatus. Therefore, it appears that the body of the claim does not match the limitations set forth in the preamble. Clarification is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham et al. (U.S. 6,029,139) in view of Dulaney et al. (U.S. 6,341,269).

As per claim 1, Cunningham et al. teaches an apparatus for creating a promotional event calendar, useful in association with at least one store, the apparatus comprising:

an econometric engine for modeling sales as a function of price to create a sales model  
(See column 2, lines 65-column 3, line 3, column 5, lines 13-23, column 6, lines 1-20, column 8, lines 1-10, column 10, lines 55-65, which discusses modeling sales using price and sales information);

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a financial model engine for modeling costs to create a cost model (See column 5, lines 14-41, column 8, lines 1-12, column 10, lines 55-65, column 11, lines 65-column 12, line 5 and lines 45-52, which discusses modeling costs using cost data);

a promotional engine coupled to the econometric engine, and financial model engine to receive input from the econometric engine and financial model engine, wherein the promotional engine analyzes a plurality of offers, a plurality of promotional events, conditions from at least one manufacturer, and constraints to optimally match offers with promotional events to create a promotional event calendar subject to conditions from the at least one store (See figure 2, column 2, lines 24-31, column 5, lines 13-42 and 59-65, column 11, lines 35-45 and 65-column 12, line 15 and lines 45-52, wherein an engine uses the output of the other engines to analyze and optimize promotional options to match offers and events (i.e. prices with displays, for example) This creates a schedule of events for future promotions. See column 2, lines 50-60, column 3, lines 1-5 and 15, column 10, lines 60-65, and column 12, lines 20-25, wherein conditions (i.e. sales, promotional participation, etc.) at the at least one store associated with a retailer is considered in the modeling of a promotional event. See also column 2, lines 1-5 and 30-45, column 4, lines 60-67, column 6, lines 1-13, and column 10, lines 20-40 and 55-57, which discuss manufacturer conditions and user input constraints).

However, while Cunningham et al. discloses receiving and analyzing constraints from a user, Cunningham et al. does not expressly disclose receiving and analyzing constraints from the at least one store wherein the constraints include a linear constraint and a nonlinear constraint.

Dulaney et al. discloses receiving and analyzing constraints the at least one store (See column 5, lines 59-65, column 6, lines 13-23, column 9, lines 50-60, column 10, lines 10-32, and

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column 16, lines 1-17, wherein constraints associated with the store are analyzed using linear/integer programming and constrained optimization) and promotion analysis (See column 18, lines 26-52). However, Dulaney et al. does not expressly disclose that the constraints include a linear constraint and a non-linear constraint.

Both Cunningham et al. and Dulaney et al. discloses using constrained optimization to make decisions concerning a store and promotions. Cunningham et al. discloses interfacing with a user to set goals and constraints and elicit promotional cost information for the system. Dulaney et al. specifically discloses constraints related to the store, such as capacity constraints concerning shelves and facings. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the user input constraints of Cunningham et al. be constraints related to the store in order to more efficiently select the best promotions for the store based on quantifiable inputs by the user, such as price, volume, or profit, by using constraints concerning the store that will affect the minimization of cost. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

Further, as stated above, both Cunningham et al. and Dulaney et al. discloses using constrained optimization. It is old and well known in operations research that constraints are used to specify restrictions on values of variables and would take the form of linear or non-linear equalities or inequalities in order to best represent the situations that limit the values of variables in the constrained optimization problem. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use linear and non-linear constraints in order to more accurately optimize promotional options by matching offers and events based on accurately represented restrictions occurring at the store.

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As per claim 2, Cunningham et al. discloses wherein the promotional engine further comprises a temporary price reduction optimizing engine for optimizing temporary price reduction prices after the promotional events and offers have been selected (See column 8, lines 1-11, column 11, lines 35-42 and line 65-column 12, line 12 and lines 45-55, wherein a temporary price reduction is considered by the promotional engine).

As per claim 3, Cunningham et al. teaches a promotional engine and outputting the optimized selection, as well as a client/personal computer (See figure 1, column 1, line 64-column 2, line 7, column 5, lines 14-45, column 11, lines 65-column 12, line 5 and lines 45-55). However, Cunningham et al. does not expressly discloses, nor does Dulaney et al., a support tool per se connected to the promotional engine that receives the promotional event calendar from the promotional engine and provides a user interface with the promotional event calendar to a client.

Cunningham discloses a system with client/server architecture and models that optimize promotional planning to create the output of promotional events and offers. Using a user interface to more efficiently display output to a user (or client) of a system is old and well known in the computer arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to display the output and optimized results to the user of the system in order to more efficiently communicate the results to the user for whom the analysis was performed. See column 2, lines 24-31, which discusses creating a plan to better meet the user's goals and figure 1 and column 1, lines 64-column 2, line 7, which discuss a personal computer connected to the system.

As per claim 4, Cunningham et al. discloses wherein the promotional engine calculates the value of offers and the value of promotional events by using the financial model and sales

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model and selects combinations of the offers and the promotional events (See column 2, lines 24-31, column 5, lines 13-42 and 59-65, column 11, lines 35-45 and 65-column 12, line 15 and lines 45-52, wherein the promotion engine uses outputs of the financial and sales models to determine offer and promotion events).

As per claim 5, Cunningham et al. discloses a computer-implemented method for creating a promotional event calendar, comprising:

- creating a sales model (See column 2, lines 65-column 3, line 3, column 5, lines 13-23, column 6, lines 1-20, column 8, lines 1-10, column 10, lines 55-65, which discuss a sales model created in the system that considers sales data);

- creating a cost model (See column 2, lines 45-52, column 5, lines 13-20 and 59-column 6, line 25, wherein a cost model is created in the system and considers cost data);

- determining conditions from at least one manufacturer (See column 4, lines 60-67, column 6, lines 1-13, and column 10, lines 20-40 and 55-57, which discuss manufacturer conditions);

- determining user input constraints (See column 2, lines 1-5 and 30-45, which discuss user input constraints);

- determining the value of offers using the sales model and cost model (See column 5, lines 14-41, column 8, lines 1-12, column 10, lines 55-65, column 11, lines 65-column 12, line 5 and lines 45-52, which discuss determining the value of offers using the models);

- determining the value of promotional events using the sales model and cost model (See column 5, lines 25-41, column 6, lines 10-12, column 11, lines 65-column 12, line 5 and lines 45-52, which discusses the value of promotional events); and

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selecting combinations of the offers and promotional events based on the determined values to create a promotional event calendar subject to the conditions from the at least one manufacturer and constraints from the user (See column 1, lines 59-63, column 2, lines 24-31, column 5, lines 25-41, column 11, lines 65-column 12, line 5 and lines 45-52, wherein the combination of offers and promotional events are selected based on determined values. See column 2, lines 50-60, column 3, lines 1-5 and 15, column 10, lines 60-65, and column 12, lines 20-25, wherein conditions related to a store are considered in the modeling of a promotional event. See also column 2, lines 1-5 and 30-45, column 4, lines 60-67, column 6, lines 1-13, and column 10, lines 20-40 and 55-57, which discuss manufacturer conditions and user input constraints).

However, while Cunningham et al. discloses receiving and analyzing constraints from a user, Cunningham et al. does not expressly disclose receiving and analyzing constraints from the at least one store wherein the constraints include a linear constraint and a nonlinear constraint.

Dulaney et al. discloses receiving and analyzing constraints the at least one store (See column 5, lines 59-65, column 6, lines 13-23, column 9, lines 50-60, column 10, lines 10-32, and column 16, lines 1-17, wherein constraints associated with the store are analyzed using linear/integer programming and constrained optimization) and promotion analysis (See column 18, lines 26-52). However, Dulaney et al. does not expressly disclose that the constraints include a linear constraint and a nonlinear constraint.

Both Cunningham et al. and Dulaney et al. discloses using constrained optimization to make decisions concerning a store and promotions. Cunningham et al. discloses interfacing with a user to set goals and constraints and elicit promotional cost information for the system.

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Dulaney et al. specifically discloses constraints related to the store, such as capacity constraints concerning shelves and facings. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the user input constraints of Cunningham et al. be constraints related to the store in order to more efficiently select the best promotions for the store based on quantifiable inputs by the user, such as price, volume, or profit, by using constraints concerning the store that will affect the minimization of cost. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

Further, as stated above, both Cunningham et al. and Dulaney et al. discloses using constrained optimization. It is old and well known in operations research that constraints are used to specify restrictions on values of variables and would take the form of linear or non-linear equalities or inequalities in order to best represent the situations that limit the values of variables in the constrained optimization problem. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use linear and non-linear constraints in order to more accurately optimize promotional options by matching offers and events based on accurately represented restrictions occurring at the store.

As per claim 6, Cunningham et al. wherein the creating of the sales model comprises: creating a plurality of demand groups, wherein each demand group is a set of at least one product and wherein at least one of the demand groups is a set of at least two substitutable products (See column 2, lines 25-35, column 4, line 61-column 5, lines 8, column 6, lines 22-40 and 50-62, which discusses demand groups wherein a demand group is one product or more than one product, such as segment or brand family. A segment is a product type, such as tea bags, wherein teabags of different manufacturers would be substitutes), wherein the creation of the

plurality of demand groups includes error detection and correction based on attributes of the plurality of demand groups (See figure 3, column 6, lines 35-46, and column 11, 15-30, wherein when the demand group is formed, data is aggregated and the data is checked for missing values (ie errors), which when found is corrected);

creating a sales model for each demand group (See column 2, lines 25-35, column 4, line 61-column 5, lines 8, column 6, lines 22-40 and 50-62, wherein sales data is obtained and modeled for a demand group); and

creating a market share model for each product in each demand group (See column 2, lines 45-57, column 4, line 61-column 5, line 12, column 6, lines 22-40 and 50-65, wherein a model is created concerning the market of the demand group).

As per claim 7, Cunningham et al. discloses the step of estimating net profit from the selected combination of offers and promotional events using the sales model and cost model (See column 5, lines 30-56, column 6, lines 1-22, wherein the net profit is estimated by using optimization, the sales and cost models).

Claim 8 recites equivalent limitations to claims 5-7 above and is therefore rejected using the same art and rationale applied above.

As per claim 9, Cunningham et al. discloses determining user input constraints (See column 2, lines 1-5 and 30-45, which discuss user input constraints). However, while Cunningham et al. discloses receiving and analyzing constraints from a user and using linear programming, Cunningham et al. does not expressly disclose receiving and analyzing constraints the at least one store.

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Dulaney et al. discloses store constraints, where the store constraints include display space capacity (See figure 1, column 5, lines 59-65, column 6, lines 13-23, column 10, lines 1-32, and column 16, lines 1-17, wherein constraints associated with the store are analyzed using linear/integer programming and constrained optimization. The constraints include facing and shelf constraints).

Both Cunningham et al. and Dulaney et al. discloses using constrained optimization (linear programming) to make decisions concerning a store and promotions. Cunningham et al. discloses interfacing with a user to set goals and constraints and elicit promotional cost information for the system. Dulaney et al. specifically discloses constraints related to the store, such as capacity constraints concerning shelves and facings. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the user input constraints of Cunningham et al. be constraints related to the store, such as display space, in order to more efficiently select the best promotions for the store based on quantifiable inputs by the user, such as price, volume, or profit, by using constraints concerning the store that will affect the minimization of cost. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

As per claim 10, Cunningham et al. discloses determining user input constraints (See column 2, lines 1-5 and 30-45, which discuss user input constraints). However, while Cunningham et al. discloses receiving and analyzing constraints from a user and using linear programming, Cunningham et al. does not expressly disclose receiving and analyzing constraints the at least one store.

Dulaney et al. discloses store constraints, where the store constraints includes at least one of an event type (See column 18, lines 28-53, which discusses promotions/seasonal events).

Both Cunningham et al. and Dulaney et al. discloses using constrained optimization (linear programming) to make decisions concerning a store and promotions. Cunningham et al. discloses interfacing with a user to set goals and constraints and elicit promotional cost information for the system. Dulaney et al. specifically discloses constraints related to the store, such as capacity constraints concerning shelves and facings. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the user input constraints of Cunningham et al. be constraints related to the store, such as event types, in order to more efficiently select the best promotions for the store based on quantifiable inputs by the user, such as price, volume, or profit, by using constraints concerning the store that will affect the minimization of cost. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

Claims 11-12 and 13-14 recite equivalent limitations to claims 9-10, respectively, and are therefore rejected using the same art and rationale applied above.

As per claim 15, Cunningham teaches wherein the matching of offers with promotional events involves solving an optimization problem (See column 5, lines 25-45 and 50-56, wherein a linear optimization problem is solved to optimize the promotional plans). However, Cunningham et al. does not expressly disclose that the optimization problem is specifically an integer problem with the linear constraint and the nonlinear constraint.

Dulaney et al. discloses an integer problem as a type of constrained optimization (See column 16, lines 1-17).

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Cunningham et al. discloses using optimization to find the best promotions based on volume, price, profit, etc. goals. Using integer programming when some variables of the problem need to be integer values is old and well-known in operations research, as discussed by Dulaney et al. Cunningham et al. discloses the variable of volume, for example, where the number of products must be an integer value. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use an integer problem in the optimization performed by Cunningham et al. in order to more efficiently select the best promotions at the least cost in a problem involving inputs that have integer values. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

Further, as stated above, both Cunningham et al. and Dulaney et al. discloses using constrained optimization. It is old and well known in operations research that constraints are used to specify restrictions on values of variables and would take the form of linear or non-linear equalities or inequalities in order to best represent the situations that limit the values of variables in the constrained optimization problem. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use linear and non-linear constraints in order to more accurately optimize promotional options by matching offers and events based on accurately represented restrictions occurring at the store.

Claims 16 and 17 recite equivalent limitations to claim 15 and are therefore rejected using the same art and rationale applied above.

As per claims 19, 21, and 23, Cunningham et al. teaches wherein the conditions from the at least one manufacturer include providing at least one of a promotional event and a specific amount of promotion (See column 2, lines 1-5 and 30-45, column 4, lines 60-67, column 6, lines

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1-13, and column 10, lines 20-40 and 55-57, which discuss manufacturer conditions, such as role in promotions).

As per claim 20, 22, and 24, Cunningham et al. teaches wherein the conditions from the at least one manufacturer include if a manufacturer is providing goods or products for a competitor (See column 2, lines 1-5 and 30-45, column 4, lines 60-67, column 6, lines 1-13, and column 10, lines 20-40 and 55-57, which discuss manufacturer conditions, such as role in promotions). However, neither Cunningham et al. or Dulaney et al. disclose that the manufacturer conditions include not providing a promotional event for a competitor's product.

Cunningham et al. discloses taking into consideration actions of competitor manufacturers when planning a promotion. When there is no competitor action, it would not be considered and thus not affect the planning of Cunningham et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider a manufacturer not providing a promotional event for a competitor's product in the planning of Cunningham et al. in order to more efficiently select the best promotions for the store based on quantifiable inputs by the user by using considering all variables that will affect the minimization of cost. See column 5, lines 50-55, of Cunningham et al. which discloses this motivation.

***Response to Arguments***

5. Applicant's arguments with regards to Cunningham et al. (U.S. 6,029,139) in view of Dulaney et al. have been fully considered, but they are not persuasive. In the remarks, Applicant argues that Cunningham et al. does not teach or suggest (1) that constraints from the at least one store include a linear and a nonlinear constraint to optimally match offers with promotional

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events, (2) as per claim 6, creation of demand groups based on substitutable products, wherein the creation includes error detecting and correction based on attributes of the demand groups.

In response to argument (1), Examiner points out that these are new limitations that have been currently added and are addressed in the new 35 USC 103 rejections set forth above, as necessitated by amendment. Examiner points out that both Cunningham et al. and Dulaney et al. disclose constraints associated with optimization problems. Thus, since both linear and non-linear constraints are well known in operations research, as discussed above, this limitation is rejected based on Cunningham et al. in view of Dulaney et al., as set forth above.

In response to argument (2), Examiner respectfully disagrees. First, Cunningham et al. discloses substitutable products in column 2, lines 25-35, column 4, line 61-column 5, lines 8, column 6, lines 22-40 and 50-62, which discloses segments and brand families, and further discloses segments as product types, such as tea bags, wherein teabags of different manufacturers would be substitutes. This was asserted last office action with regards to claim 18. Examiner notes on pages 11, 12, and 15 of the current remarks, Applicant does not address why these sections do not teach substitutable products, just that the references do not disclose them. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Further, with regards to error detection and correction based on attributes, see figure 3, column 6, lines 35-46, and column 11, 15-30, wherein when the demand group is formed, data is aggregated and the data is checked for missing values (ie errors), which when found is corrected. Thus Cunningham et al. does teach and suggest detecting error (missing values) and correcting these errors.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*bvd*  
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January 11, 2007

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